

TI-31356

Patent Amendment

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 12, 2003. Applicant has amended claims 1-2, 4, and 6-8. Reconsideration and favorable action in this case are respectfully requested.

The Examiner has rejected claims 1-2, 8 and 10-12 under 35 U.S.C. §102(b) as being unpatentable over U.S. Pat. No. 4,638,426 to Chang et al. Applicant has reviewed this reference in detail and does not believe that it discloses or makes obvious the invention as claimed.

The Examiner has also rejected claims 1-12 under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,940,872 to Hammond et al in view of U.S. Pat. No. 5,899,994 to Mohamed et al and U.S. Pat. No. 6,182,089 to Ganapathy et al. Applicant has reviewed these references in detail and does not believe that they disclose or make obvious the invention as claimed.

The Examiner has rejected claim 13 under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,940,872 to Hammond et al in view of U.S. Pat. No. 5,899,994 to Mohamed et al and U.S. Pat. No. 6,182,089 to Ganapathy et al, and further in view of U.S. Pat. No. 6,029,000 to Woolsey et al. Applicant has reviewed these references in detail and does not believe that they disclose or make obvious the invention as claimed.

Claim 1 is directed to a method of operating a digital system having a processor and an associated translation lookaside buffer (TLB) responsive to an operation command, where a set of two or more memory addresses can be locked or unlocked, where the set is defined in least in part by a task identification value. The amendment to claim 1 further clarifies that the task identifier value selects, at least in part, multiple TLB



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entries for locking or unlocking. Claims 2, 4, 6 and 7 were amended to provide proper antecedent basis.

With regard to the Chang reference, no method of locking or unlocking a *set* of multiple TLB entries is disclosed in Chang. More specifically, Chang does not teach a method of locking or unlocking a set of multiple TLB entries *based on a task identification value*.

It should be noted with regard to Chang, that the "lockbit" in each entry of the TLB are used to prevent the *underlying data* (i.e., the data in the physical memory address page referenced by the TLB entry), not the *entry itself*. As can be seen in Table IV of Chang, if the lockbit is a "1" (locked) for an entry, read access to the physical memory location is allowed, while store access is not allowed. This differs from the present invention, where the entry itself is locked by the lock bit.

With regard to the §103(a) rejection, neither Hammond, nor Mohamed, nor Ganapathy describe method of locking or unlocking a *set* of multiple TLB entries; and specifically, none of these references teaches a method of locking or unlocking a set of multiple TLB entries *based on a task identification value*.

Accordingly, Applicant respectfully requests allowance of claim 1, along with dependent claims 2-7.

Claim 8 is directed to a digital system having a TLB, including control circuitry connected to storage circuitry, wherein the control circuitry is responsive to an operation command to lock or unlock a selected set of two or more entry locations with have a first qualifier value.

As discussed above, none of Chang, Hammond, Mohamed or Ganapathy teach a digital system where a set of multiple TLB entries can be selected for locking or unlocking, where the set is selected according to a first qualifier value. Claim 10 adds the



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further restriction that the set is selected according to first and second qualifier values.
This also is not shown in any of the cited references.

Accordingly, Applicant respectfully requests allowance of claim 8 and dependent claims 9-13.

The Commissioner is hereby authorized to charge any fees or credit any overpayment, including extension fees, to Deposit Account No. 20-0668 of Texas Instruments Incorporated.

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Alan W. Lintel, Applicant's Attorney at (972) 664-9595 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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